What is claimed is:

1. A method for producing a microlens array, said microlens array having a surface configuration having peaks and valleys and comprising a plurality of unit cells and a plurality of microlenses, one microlens per unit cell, said method comprising:

(a) providing a positive photoresist;

(b) exposing the positive photoresist with a laser beam having a finite beam width to form a master, said master having a surface configuration which is substantially the negative of the surface configuration of the microlens array; and

(c) using the master to:

(i) produce the microlens array, and/or

(ii) produce a further master used to form the microlens array, and/or

(iii) produce the first of a series of further masters used to form the microlens array;

wherein said microlens array comprises at least two convex microlenses at adjacent unit cells so that the master comprises at least two concavities at adjacent unit cells.

2. The method of Claim 1 wherein said microlens array comprises only convex microlenses so that the master comprises only concavities.

3. The method of Claim 2 wherein the master lies between a first plane and a second plane, the concavities extend into the master in the direction from the first plane towards the second plane, and the maximum sag of each concavity is at the first plane.

4. The method of Claim 2 wherein the master lies between a first plane and a second plane, the concavities extend into the master in the direction from the first plane towards the second plane, and the location of the maximum sag of each concavity relative to the first plane varies between at least some adjacent unit cells at a sufficiently slow rate so that

the focusing efficiency of the microlens array is not reduced below 75 percent.

5. The method of Claim 1 wherein the master lies between a first plane and a second plane, the at least two concavities extend into the master in the direction from the first plane towards the second plane, and the distances between the apexes of the at least two concavities and the first plane are different.

6. The method of Claim 5 wherein said distances are randomly distributed.

7. The method of Claim 1 wherein at least one of said at least two concavities is anamorphic.

8. The method of Claim 1 wherein the microlens array has a focusing efficiency of at least 75 percent.

9. The method of Claim 1 wherein the microlens array has a focusing efficiency of at least 85 percent.

10. The method of Claim 1 wherein the microlens array has a focusing efficiency of at least 95 percent.

11. The method of Claim 1 wherein the fill factor of the microlens array is at least 90 percent.

12. The method of Claim 1 wherein the fill factor of the microlens array is at least 95 percent.

13. The method of Claim 1 wherein the fill factor of the microlens array is substantially equal to 100 percent.

14. A microlens array comprising a plurality of unit cells and a plurality of microlenses, one microlens per unit cell, said array having a focusing efficiency of at least 75 percent.

15. The microlens array of Claim 14 wherein the array has a focusing efficiency of at least 85 percent.

16. The microlens array of Claim 14 wherein the array has a focusing efficiency of at least 95 percent.

17. The microlens array of Claim 14 wherein the array has a fill factor of at least 90 percent.

18. The microlens array of Claim 14 wherein the array has a fill factor of at least 95 percent.

19. The microlens array of Claim 14 wherein the array has a fill factor substantially equal to 100 percent.

20. The microlens array of Claim 14 wherein the microlenses are convex microlenses.

21. The microlens array of Claim 14 wherein at least some of the microlenses are anamorphic.

22. The microlens array of Claim 14 wherein at least two of the microlenses differ from one another randomly.

23. The microlens array of Claim 14 wherein the unit cells are close packed.